UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/750,264	12/29/2000	Erhan Guven	TI-32148	7390

			EXAMINER
23494	7590	05/06/2004	NGUYEN, ALAN V

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ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/750,264	GUVEN ET AL.
	Examiner	Art Unit
	Alan Nguyen	2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *7-10* is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 December 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Specification

1.   The new abstract has been acknowledged. However, it appears the new abstract

refers to an oil and gas platform design. To expedite the examination process, the

original abstract is acceptable and will be used, unless the applicant wishes otherwise.

The new abstract will be disregarded.

2.   The disclosure is objected to because of the following informalities:

>   On page 7 line 4, "Gateway 3" should read "Gateway 9".

>   On page14 line 17, "originating an" should read "originating and".

>   On page 19 line 3, "the receiving" should read "The receiving".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Qarni et

al (US 6,438,105) hereafter Qarni.

Regarding **claim 1** Qarni discloses a method for reducing data loss in the event

of packet loss in a modem relay connection over a packet network, comprising the steps

of **(the method specifies the error correction and recovery between gateways**

connected via an IP network. The facsimile data is in the form of a fax data

packet. Transmission of data from a fax machine necessitates some form of

modem function to convert data through the phone line; for example see figure 1,

col 4 lines 37-54 and col 5 lines 15-40):

providing a packet format including a header portion (figure 7, element 38), a

sequence number and a data portion **(element 44D; the frame contains header as**

shown in figure 7, and a primary packet with a sequence number. The frame can

be interpreted as a packet format with headers, new data, and redundant data; col

9 lines 18-31);

dividing said data portion into a plurality of segments; providing new data in at

least one of said segments; providing redundant data in at least one other of said

segments, wherein said redundant data corresponds to new data of at least one packet

having a previous sequence number **(figure 7 shows a primary packet 44D with a**

sequence number of 65, and three redundant packets 44E, 44F, and 44G, having

decreasing sequence numbers 64, 63, and 62; col 9 lines 18-31);

reading said sequence numbers of consecutively received packets to determine

packet loss; and retrieving redundant data from subsequent packets if packet loss is

determined **(if the receiver receives an out-of-sequence frame, the receiver looks**

for the redundant packets in the frame. If the packet is found it is processed

immediately; col 9 lines 40-53).

Regarding **claim 2** Qarni discloses establishing a redundancy format for a given modem

relay connection including negotiating a repetition count value; and providing said

repetition count value to each end of said modem relay connection **(the dynamic**

redundant packet window RPW is a count that alters the number of redundant

packets that can be transmitted within a frame. It is sent from the transmitter to

the receiver; for example see col 8 lines 36-45).

Regarding **claim 3** Qarni discloses where the repetition count value is dependent upon

the characteristics of said packet network **(the RPW is a parameter that is variable**

depending upon the quality of the network and whether packets are lost en route

from the transmitter to the receiver; for example see col 8 lines 35-52).

Regarding **claim 4** Qarni discloses establishing a redundancy format further including:

negotiating a whole number value for the number of new bytes in each data packet

(figure 3; The header further includes a field comprising bytes 58 and 60 that

contains the length of the payload of each packet. The payload is the amount of

data for each packet; col 6 line 50-55).

Regarding **claim 5** Qarni discloses where the repetition count is re-negotiated when the packet loss number exceeds said repetition count **(if the network exhibits substantial packet loss, then the size of the dynamic redundant packet window increases. Furthermore, if the network has no packet loss, the RPW count is reduced to 1 primary data packet and 0 redundant packets; col 8 lines 35-60)**.

Regarding **claim 6** Qarni discloses further including detection of a value of the number of lost packets which exceeds the value of said repetition count; said receiving gateway reporting said detection; adjusting said repetition count to compensate for increases in packet loss across said to packet network **(If the network exhibits substantial packet loss, then the size of the dynamic redundant packet window increases. The packet loss or corruption happens in transit from the transmitter to the receiver. This information is detected by the receiver, and the RPW count is adjusted accordingly by the transmitter; col 8 lines 53-67)**.

Allowable Subject Matter

5.   **Claims 7-10** are allowed. Regarding *claim 7* the cited references taken individually or in combination fails to particularly disclose where the combination of a method for reducing data loss in the event of packet loss in a modem relay connection that comprises retaining a predetermined number of sequential blocks of modem data at said transmitting gateway, by dropping the oldest block and retaining the most recent block; providing the most recent block of data in said designated new data segment of

said data portion of said packet; providing the remaining retained blocks of data in the remainder of said segments; wherein: each time said transmitting gateway receives new block of data from said transmitting modem, said oldest block is dropped from said retained set of data, said new block of data is encoded in the next data packet as the new data block; and said remaining retained blocks are encoded into said data packet as redundant data to blocks; transmitting said packets from said transmitting gateway to said receiving gateway.

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patent is cited to show the state of the art with respect to the use of error correction and redundancy over IP networks connected to PSTN gateways:

US Patent (6,389,038) to Goldberg et al

US Patent (6,483,600) to Schuster et al

US Patent (6,674,713) to Berg et al

The following patent is cited to show the state of the art with respect to the use of error correction:

US Patent (6,553,038) to Fukuda

The following patent is cited to show the state of the art with respect to the use of modem relay:

US Patent (6,515,996) to Tonnby et al

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Alan Nguyen whose telephone number is 703-305-0369.

The examiner can normally be reached on 9am-6pm ET

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ricky Ngo can be reached on 703-305-4798. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9314.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

AVN
April 12, 2004

RICKY NGO
PRIMARY EXAMINER